STATE OF NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

AIR RESOURCES DIVISION

CHAPTER Env-A 300 AMBIENT AIR QUALITY STANDARDS

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Statutory Authority: RSA 125-C:4; I

PART Env-A 301 PURPOSE

Env-A 301.01 Purpose. This chapter is adopted for the purpose of delineating a maximum concentration and duration of time for particulate matter, sulfur dioxide, nitrogen dioxide, hydrocarbons, carbon monoxide, ozone, lead, and fluorides either separately, in combination with each other, or in combination with other pollutants in the ambient air, which are deemed compatible with the health and welfare of all human beings. The degree of air purity required depends on the adverse effects upon any or all receptors such as humans, animals, vegetation, and property. In order to prevent the build-up of concentrations which might adversely affect the health and welfare of humans, the following standards are hereby established.

Env-A 302 BACKGROUND

Env-A 302.01 Air Quality Control Regions. Pursuant to the Clean Air Act of 1967, certain areas of each state were designated as air quality control regions. On October 6, 1970, Cheshire, Sullivan, Hillsborough, Merrimack, Belknap, Rockingham, and Strafford counties were designated as the New Hampshire portion of the Merrimack Valley-Southern New Hampshire Air Quality Control Region. On November 14, 1970, Coos county was designated as part of the Androscoggin Valley air quality control region. By the Clean Air Act of 1970, those areas of a staqte not already included in an air quality control region were required to be included in one or more such regions. Consequently, on April 1, 1971, Grafton and Carroll counties were designated as the central New Hampshire intrastate air quality control region by EPA.

Env-A 302.02 Ambient Air Quality Standards. By the Clean Air Act of 1967, those areas of the state declared part of an air quality control region were required to adopt ambient air quality standards to ensure the public health and welfare in that region. The Clean Air Act of 1970 further required the promulgation of national primary and secondary ambient air quality standards; primary standards are those protective of public health and secondary standards are those protective of public welfare. The secondary standards are the more stringent.

Env-A 302.03 Primary and Secondary Standards. Primary and secondary ambient air quality standards are hereby adopted for the state of New Hampshire. These primary and secondary standards are equivalent, respectively, to the federal primary and secondary standards and are therefore protective of both the public health and welfare. The promulgation of New Hampshire primary and secondary ambient air quality standards shall not be considered in any manner to allow significant deterioration of existing air quality in any portion of the state.

PART Env-A 303 PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS.

Env-A 303.01 Particulate Matter.

(a) Particulate matter shall be reported in terms of ug/m^3 (micrograms per cubic meter) of ambient air.

(b) Primary and Secondary Standards.

(1) The annual arithmetic mean for particulate matter shall not exceed 50 ug/m^3. The standards are attained when the expected annual arithmetic mean concentration is less than or equal to 50 ug/m^3 as determined in accordance with Appendix K of 40 CFR Part 50.

(2) The maximum 24-hour average concentration for particulate matter shall not exceed 150 ug/m^3. The standards are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 ug/m^3 is equal to or less than one as determined in accordance with Appendix K of 40 CFR Part 50.

(3) For the purpose of determining attainment of the primary and secondary standards, particulate matter shall be measured in the ambient air as PM^{10} (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) by:

a. A reference method based on Appendix J of 40 CFR Part 50 and designated in accordance with 40 CFR Part 53, or

b. An equivalent method designated in accordance with 40 CFR Part 53.

ENV-A 303.015 Method of Measurement. The method of measurement for the pollutants in the following sections in this part shall be in accordance with methods prescribed by U.S. EPA regulations for all pollutants for which such methods have been

adopted.

Env-A 303.02 Sulfur Dioxide, CAS 7446-09-5. Sulfur dioxide concentrations shall be reported in terms of micrograms per cubic meter (ug/m^3) or parts per million (ppm) of ambient air.

(a) Primary standards for sulfur dioxide shall be as follows:.

(1) The annual arithmetic mean for sulfur dioxide shall not exceed 0.030 ppm or 80 ug/m^3.

(2) The maximum 24-hour concentration shall not exceed 0.14 ppm or 365 ug/m^3 more than once per year.

(b) For secondary standards, the maximum 3 hour concentration shall not exceed 0.5 ppm or 1300 ug/m^3 more than once per year.

Env-A 303.03 Carbon Monoxide, CAS 630-08-0.

(a) Carbon monoxide concentrations shall be reported in terms of milligrams per cubic meter (mg/m^3) or parts per million (ppm) of ambient air.

(b) The maximum 8 hour primary concentration shall not exceed 9 ppm or 10 mg/m^3 more than once per year.

(c) The maximum 1 hour concentration shall not exceed 35 ppm or 40 mg/m^3 more than once per year.

Env-A 303.04 Nitrogen Dioxide, CAS 10102-44-0.

(a) Nitrogen dioxide shall be reported in terms of micrograms per cubic meter (ug/m^3) or parts per million (ppm) of ambient air.

(b) For primary and secondary standards, the annual arithmetic mean for nitrogen dioxide shall not exceed 0.05 ppm or 100 ug/m^3.

Env-A 303.05 Ozone, CAS 10028-15-6.

(a) Ozone shall be reported in terms of micrograms per cubic meter (ug/m^3) or parts per million, ppm, of ambient air.

(b) For primary and secondary standards the maximum 1 hour average concentration of ozone shall not exceed 0.12 ppm or 235 ug/m^3. The standard

shall be deemed to be attained when the expected number of days per calendar year, with maximum hourly average concentrations above 0.12 ppm, is equal to or less than 1, as determined by a statistical method acceptable to the EPA.

Env-A 303.06 Hydrocarbons.

(a) The hydrocarbon standard shall be a guide in devising implementation plans to achieve ozone standards. Hydrocarbons shall be reported in terms of micrograms per cubic meter, ug/m^3, or parts per million, ppm, of non-methane hydrocarbons.

(b) In order to achieve primary and secondary standards, the maximum 3 consecutive hour concentration, from 6:00 a.m. through 9:00 a.m., of non-methane hydrocarbons shall not exceed 0.24 ppm or 160 ug/m^3 more than once per year.

Env-A 303.07 Lead, CAS 7439-92-1.

(a) Lead shall be reported in terms of micrograms per cubic meter (ug/m^3).

(b) In order to achieve primary and secondary standards, the maximum arithmetic mean averaged over a calendar quarter shall not exceed 1.5 ug/m^3.

Part Env-A 304 * * *

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